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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/030,025 | 01/02/2002 | Antonio Canova | N8084-EAS | 9122 |

7590 08/21/2003

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EXAMINER

NGUYEN, MATTHEW VAN

ART UNIT PAPER NUMBER

2838

DATE MAILED: 08/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,025

Applicant(s)

CANOVA ET AL.

Examiner

MATTHEW V NGUYEN

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 13-17 and 21 is/are rejected.
- 7) ☒ Claim(s) 2-12, 18-20 and 22-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. The disclosure should be carefully reviewed and ensure that any and all grammatical, idiomatic, and spelling or other minor errors are corrected.
2. The abstract of the disclosure is objected to because it must be included in a single sheet. Correction is required. See MPEP § 608.01(b).
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kajitani et al. (U.S. Pat. No. 5,187,420).

With regard to claims 1 and 21, Kajitani et al. shows a voltage control circuit for a motor comprising all the claimed subject matter (see. Fig. 1 and abstract), except for the absence of the line voltage of the voltage source (it is noted that Kajitani, however, discloses the OPERATION COMMAND SIGNAL) . It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the OPERATION COMMAND SIGNAL of Kajitani et al. with the line voltage of the voltage source because they both are from a power source; thus the selection of any one of them would be within the level of ordinary skill in the art.

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4. Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kajitani et al. in view of Guerin (U.S. Pat. No 5,237,254).

With regard to claims 13-17, Kajitani et al. shows a voltage control circuit for a motor comprising all the claimed subject matter as discussed above, except for a bridge circuit connected to the voltage source and the motor. Guerin (Fig. 4) also discloses a control circuit for a motor, in which the bridge (38.1 – 38.4) connected to the voltage source and the motor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to arrange the bridge circuit as shown by Guerin into the voltage control circuit of Kajitani et al. for the purpose of enhancing the power efficiency of the control circuit.

5. Claims 2-12, 18-20 and 22-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of prior art of record taken alone or in combination shows the correction voltage having a correction voltage frequency equal to the line voltage frequency and a correction voltage phase that is phase-shifted with respect to the line voltage phase in an amount proportional to the difference between the line voltage and the motor design voltage.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Fukaya et al. (U.S. Pat. No. 4,227,127) and Tanahashi (U.S. Pat. No. 5,460,244) also disclose control circuits for a motor, each of which comprises substantial elements as recited in the instant application.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew V. Nguyen whose telephone number is (703) 305-3415.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1782.

Matthew V. Nguyen
MATTHEW V. NGUYEN
PRIMARY EXAMINER